

FEATURE

Hugh Hammond Bennett and the creation of the Soil Erosion Service

Douglas Helms

The Soil Conservation Service (SCS) was created in the United States Department of Agriculture (USDA) by an act of Congress on April 27, 1935. However, an earlier date, September 19, 1933, should not pass without recognition. That date marks the selection of Hugh Hammond Bennett as the director of the Soil Erosion Service (SES), predecessor to SCS. Creation of the SES was critical to the future of federal soil conservation activities, the history of SCS, and Bennett's recognition as the "father of soil conservation."

This article discusses Bennett's USDA career, which made him the logical candidate to lead the federal soil conservation effort, and recounts the summer of 1933 when the New Deal included soil conservation as a purpose for public works programs. During June to September 1933, several agencies put forth plans to utilize the public works funds to be devoted to soil conservation. It was by no means certain that the architects of the New Deal would favor Bennett's plan over its competitors. Bennett's selection as the Director of SES, while logical, was not a foregone conclusion.

BENNETT'S EARLY CAREER

Bennett earned a Bachelor of Science degree with an emphasis in chemistry and geology from the University of North Carolina in June 1903 and upon graduating joined the Bureau of Soils within the USDA. The Bureau had begun to make county-based soil surveys in 1899, which became regarded as an important American contribution to the field of soil science. The outdoor work suited Bennett, and he mapped soils and wrote a number of soil surveys.

The 1905 survey of Louisa County, Virginia, in particular, profoundly affected Bennett. He had been directed to the county to investigate declining crop yields.

Douglas Helms is the National Historian, USDA Natural Resources Conservation Service, Washington, DC.

As he compared virgin, timbered sites to eroded fields, he became convinced that soil erosion was a problem not just for the individual farmer but also for rural economies. While this experience aroused his curiosity, Bennett recalled that Thomas C. Chamberlain's paper on *Soil Wastage* presented in 1908 at the Governors' Conference in the White House "fixed my determination to pursue that subject to some possible point of counteraction" (Bennett 1959).

Bennett wrote increasingly about soil erosion in the 1920s for an array of popular and scientific journals such as *North American Review*, *Country Gentleman*, *Scientific Monthly*, and the *Journal of Agricultural Research*. He was establishing himself as the USDA expert on soil erosion and was recognized as such. His campaign received quite a boost when Henry G. Knight, Chief of the Bureau of Chemistry and Soils, placed Bennett in charge of a special study of the extent of soil erosion and methods of control, effective January 1928.

Bennett's travels around the country and studies provided grist for his articles and talks. He succeeded in arousing national attention where others had failed. Among his writings of the 1920s, none was more influential than a 1928 USDA bulletin coauthored with William Ridgely Chapline titled *Soil Erosion: A National Menace*. Bennett expressed the motivation for his later actions: "The writer, after 24 years spent in studying the soils of the United States, is of the opinion that soil erosion is the biggest problem confronting the farmers of the Nation over a tremendous part of its agricultural lands." The bulletin was not a manual on the methods of preventing soil erosion; rather it was intended to draw attention "to the evils of this process of land wastage and to the need for increased practical information and research work relating to the problem" (Bennett and Chapline 1928).

Bennett followed up momentum gained from the bulletin and well-placed magazine articles with a campaign for a



Hugh Hammond Bennett. Photo courtesy of the USDA Natural Resources Conservation Service.

national soil erosion program. He knew the few soil erosion researchers at the state agricultural experiment stations. Important as their investigations were, the experiments covered only a few spots on the vast agricultural landscape. In Bennett's mind a national program of soil erosion was needed. Bennett's ally in cause, A.B. Connor of the Texas Agricultural Experiment Station, enlisted the aid of Representative James Buchanan, who inserted a clause in the USDA appropriations bill for fiscal year 1929–1930 that authorized the soil experiment stations. (Eventually the stations would be renamed soil conservation experiment stations.) Bennett was disappointed that some of the funds were allotted to the Forest Service and to the Bureau of Agricultural Engineering (BAE). Despite this disappointment, he sought out locations and cooperators for the stations that he would supervise from his new position in charge of the Bureau of Chemistry and Soils' soil erosion and moisture conservation investigations (Helms, forthcoming).

A PUBLIC WORKS PROGRAM TO STIMULATE THE ECONOMY

FDR and the architects of the New Deal acted early in the administration to pro-

vide work for the unemployed through federally funded projects. Coincidental to providing employment, these wages would prime the local economic pump and, it was hoped, bring the country out of the economic depression. The public works legislation identified soil conservation as one of its purposes. Roosevelt was inaugurated on March 4, 1933, and on March 21 he proposed to Congress that they create "a civilian conservation corps to be used in simple work, not interfering with normal employment, and confining itself to forestry, the prevention of soil erosion, flood control and similar projects" (Congressional Record). Congress passed the Emergency Conservation Work legislation on March 31, 1933. As the federal agencies sorted out their responsibilities, the Forest Service in the USDA assumed general supervision of a small number of Civilian Conservation Corps (CCC) camps that worked on soil conservation. Prior to the creation of the SCS in 1935, the CCC worked predominantly on public forest and park lands.

The CCC addressed only a segment of the unemployed, young men aged 18 to 25; consequently, there remained the need for a broader public works program. The Federal Emergency Relief Act (May 12, 1933) provided direct relief to states. Meanwhile, the Cabinet and "Brain Trust"—FDR's personal advisors—continued crafting a federal public works bill. Harold L. Ickes, Secretary of the Interior, had suggested to FDR that conservation of natural resources be among the objectives of the bill. He confided the following in his diary:

I made two suggestions as to this bill which met with the approval of the President. The first was that there be a definite revision made to include conservation of natural resources among the objects of the bill; and the other was instead of appointing an independent Public Works Administrator, the new official be assigned to some department (Ickes 1933a, May 16, 1933).

Henry A. Wallace, Secretary of Agriculture, discussed potential public works projects with some of his staff. On May 30, he advised Samuel H. McCrory, Chief of the BAE, that he had talked to the President

"about the matter of getting some of the public works money for erosion control. The president seems to be very much interested in the general problem of erosion but time did not permit getting any detailed views from him as to action under the public works bill" (Wallace 1933a).

Title II of the National Industrial Recovery Act, enacted on June 16, 1933, created the Federal Emergency Administration of Public Works. All powers of the new administration were to be exercised by the Federal Emergency Administrator of Public Works, who could establish new agencies, utilize federal and state employees, and appoint employees without regard to civil service laws. In keeping with the Ickes suggestion, FDR appointed the Secretary of the US Department of the Interior, to the dual post of Federal Emergency Administrator of Public Works (Executive Order No. 6198, July 8, 1933). Among the eligible purposes enumerated in the act were the "conservation and development of natural resources, including control, utilization, and purification of waters, prevention of soil or coastal erosion, development of water power..." (Statutes at Large).

It seems likely that FDR needed little persuasion to include soil conservation as a purpose of the Act, given his interest in forestry, erosion, and conservation. He had carried out reforestation and soil conservation work on his estate at Hyde Park, New York, and on his small farm near Warm Springs, Georgia. As governor of New York, FDR had hired some of the state's youth to reforest abandoned farm land purchased by the state. His personal life and public career indicate that not only would he be receptive to the idea, but also that he would have arrived at that thought independently.

Within the USDA, some bureaus were already thinking about public works projects that could be funded under the bill then being drafted and making its way through Congress. Before the bill was signed, the BAE had formulated a plan for a national terracing program for erosion control. The BAE proposed that it supply the technical direction, while the state administrators in the new public works agency would administer the program

and employ a supervising engineer for each state. The federal government would supply the terracing equipment while the farmer signed an agreement to provide the labor, power, and future maintenance. The state extension services could help farmers form cooperating organizations to facilitate the agreement process. Rexford G. Tugwell, acting for Secretary Wallace, forwarded the plan to the Administrator, Federal Emergency Administration of Public Works, on June 9. Secretary Wallace had penned a note on the outgoing letter. "I have had this matter of expenditure of Public Works money for erosion control [brought] up with the President and he is very much interested" (Tugwell 1933).

JOHN COLLIER AND CULTURAL PLURALISM ON THE RESERVATIONS

Simultaneously, another USDA branch was cooperating with the US Department of the Interior on soil conservation. The Bureau of Chemistry and Soils and their soil conservation expert, Hugh Hammond Bennett, had come to the attention of John Collier, Commissioner of Indian Affairs, through Secretary of Agriculture Wallace. Wallace soon had plans for Mr. Bennett to use his conservation skills to help Collier in his mission to preserve and perpetuate Native American cultures.

Before the New Deal, Collier was active in Indian affairs and had been critical of federal Indian policy and the Office of Indian Affairs. He was a potential candidate to be Commissioner of Indian Affairs, but so too was Harold Ickes. During the presidential campaign, Ickes had sought support among fellow progressive Republicans for FDR and aspired to be Commissioner of Indian Affairs. Collier and others persuaded him to seek the Cabinet post of Secretary of the Department of the Interior. Collier, perhaps the leading advocate for reform of government policies toward Tribes, wanted to lead the Office of Indian Affairs himself. Ickes was certainly sympathetic toward the Tribes, but Collier regarded him as too inexperienced in the area and temperamentally unsuited to the job of reform (Parman 1994).

Collier's selection as Commissioner of Indian Affairs revolutionized government policy toward Tribes. For most of the late

19th and early 20th century, Indian policy promoted assimilation into American society. Collier's experiences, especially an epiphany at Taos Pueblo, converted him to cultural pluralism in which Tribes perpetuated and strengthened their unique cultures. Retaining their land base and economic viability was critical to the success of cultural pluralism in Collier's view (Parman 1994).

In viewing the potential for the reservations to support a viable livelihood, Collier and Ickes focused first on the Navajo reservation for some obvious reasons. The 16 million acre reservation was about one-fourth of the acreage in all reservations, and the Navajo were one-sixth of the native population of the United States (Fryer 1937). The Navajo had adapted their economy and culture to the sheep, goats, and horses introduced by the Europeans. After the Navajo release from captivity at Bosque Redondo and Fort Sumner and their resettlement in New Mexico, the US government supplied about 15,000 sheep and goats and distributed food, seed, and implements. From 1870 to the beginning of World War II, the Navajo population grew from around 10,000 to 50,000. Their livestock increased from a few thousand to more than a million at times and the reservation was expanded from 3.5 to 16 million acres. By the 1930s many familiar with the Western range, including the Navajo reservation, thought it had suffered land degradation from periods of overstocking (Kimball and Province 1942).

BENNETT AND COOPERATION OF BUREAU OF CHEMISTRY AND SOIL WITH THE OFFICE OF INDIAN AFFAIRS

John Collier's eldest son and assistant in the Office of Indian Affairs, Charles W. Collier, took on the mission of identifying the people to be consulted on conserving and rehabilitating the reservation lands (Collier 1963). Secretary of Agriculture Henry A. Wallace suggested cooperation with Hugh Hammond Bennett and others in the Bureau of Chemistry and Soils.

On or before May 24, 1933, an employee of the Bureau of Indian Affairs, probably Charles Collier, met with Bennett, W. Ridgley Chapline of the US Forest Service, and Frank Craighead of

the Bureau of Entomology, and sought their advice concerning erosion problems on the reservations. According to Collier's notes, Bennett believed erosion on the Dakota reservation could be "economically controlled," and offered to send George W. Musgrave, director of the erosion experiment station at Clarinda, Iowa, to investigate and make recommendations. Concerning Oklahoma, Collier reported that Bennett "believes that it would be very profitable to undertake erosion control in almost unlimited amounts." Bennett recommended H. G. Lewis, director of the Red Plains Soil Erosion Experiment Station at Guthrie, Oklahoma, and endorsed even more strongly, Dr. Nathaniel E. Winters of the Oklahoma Agricultural Experiment Station. Winters was a state, not a federal employee, but Bennett thought it might be feasible to get him assigned to the federal project. Winters, a Kansan, had the added advantage of partial Indian ancestry.

The complement of erosion experiment stations that Bennett supervised did not include a Southwestern station, and the group discussed the possibility of

establishing one. The idea of an experiment station would find favor with the Office of Indian Affairs group. After the meeting Bennett departed for a five-day fieldwork trip and his supervisor, Dr. A.G. McCall, chief of Soil Investigations in the Bureau of Chemistry and Soils, wired Musgrave and Lewis to prepare for travel to the reservations (Report 1933).

DISCUSSION ABOUT SOIL CONSERVATION ON THE NAVAJO RESERVATION

Prior to asking Secretary Wallace to arrange a meeting of the primary parties in USDA and US Department of the Interior, the Office of Indian Affairs met with Bennett and McCall several times. Wallace called on Henry G. Knight, Chief of the Bureau of Chemistry and Soils. Knight held the meeting in his office on June 8, and it included John Collier, Commissioner of Indian Affairs, Charles W. Collier, Assistant to the Commissioner, and Jay B. Nash, Special Assistant to the Indian Commissioner. Attending from the USDA were Knight, McCall, and Bennett



President Franklin Roosevelt visited with CCC enrollees near Camp Roosevelt on August 12, 1933. Seated from left are Major General Paul B. Malone, Louis M. Howe, Harold L. Ickes, Robert Fechner, FDR, Henry A. Wallace, and Rexford Tugwell. Image 35-GE-3A-5 from the National Archives, College Park.

of the Bureau of Chemistry and Soils. Attending from the BAE were Samuel H. McCrory, Chief, and Lewis A. Jones, Division of Drainage and Soil Erosion Control. William Ridgely Chapline, who had coauthored *Soil Erosion: A National Menace* with Bennett and who was in charge of range land investigations for the Forest Service, also attended.

At the meeting Collier and colleagues expressed an interest in developing a research station to study erosion problems on reservations in the Southwest. This idea probably developed from the earlier discussions with Bennett and others. For this reason, Bennett, with his experience setting up the soil erosion experiment stations, was a logical collaborator. Additionally, Collier saw the station as an educational center to which Navajos would travel for instruction in soil conservation methods. Knight understood the objective would be to develop "local leadership among the Indians themselves." The group decided that a team of representatives from the Office of Indian Affairs and USDA would meet at the Harvey Hotel, Gallup, New Mexico, on June 26 to study the conditions, especially the areas of eroding land. The group would select tracts where various known control measures would be utilized.

The Bureau of Chemistry and Soils, at the request of the Office of Indian Affairs, assumed leadership of the project and Bennett was made chairman of the committee (Knight 1933). Importantly, the proposed cooperation had the enthusiastic support of Secretary of Agriculture Wallace. He responded to Knight's report on the meeting. "Thanks for your prompt and thoroughgoing cooperation with Commissioner Collier and his associates. This work has my very great interest and it is a pleasure to see how you have responded to the suggestion of cooperation" (Wallace 1933b). John Collier cleared the plan with Secretary Ickes, who was "powerfully interested" and Collier expressly asked that Bennett serve as "informal chairman of this composite group" (Collier 1933a, June 10, 1933).

Late in June 1933, the committee met at the Navajo Reservation. Bennett represented the Bureau of Chemistry and

Soils. C.E. Ramser, Senior Drainage Engineer, and L.M. Winsor, Division of Irrigation, represented the BAE. Ramser also had researched and written on terracing and on gully-control techniques. The Indians Service's representative from their Division of Irrigation was H.C. Neuffer. Representing the Forest Service was C.K. Cooperrider from the Southwestern Forest and Range Experiment Station, who was also in charge of the erosion and streamflow research.

During the brief tour Bennett noted observations in his field diary about range conditions, erosion, and grazing by goats and sheep. Bennett met the people knowledgeable about reservation conditions and collected oral tradition stories about changes in land conditions and the names of other contacts that could be helpful. Some of these people, such as E.A. Johnson, forester for the Office of Indian Affairs at Albuquerque, would later work with SCS on the range program. Bennett noted citations for further reading such as the works of anthropologist Alfred Louis Kroeber and *Ancient Life in the American Southwest* by Edgar Lee Hewett. Toward the end of the trip when he was no doubt looking forward to writing the committee report, Bennett stated what he termed "The Problem," in his field diary: "We find that the Navajo Indian Reservation has suffered so seriously from overgrazing that range areas now have little present value" (Bennett 1933b).

NAVAJO TRIBAL COUNCIL APPROVES EXPERIMENT STATION

John Collier called a meeting of the Navajo Tribal Council at Fort Wingate on July 7 and 8, toward the end of Bennett's trip. It was Collier's first appearance before the Council as Commissioner of Indian Affairs. The reformer and outside critic was now center stage at the meeting of the Council and another 1,200 Navajo Tribal members. Indian Service officials from the Southwest and Washington, who had previously been the objects of Collier's criticism, attended. Collier's primary objective for his first meeting with the Council was approval of the experiment station. Bennett spoke to the Council and emphasized the fact that erosion that had taken place and the need

for experiments and education (Parman 1976; Kelly 1985).

The next day, July 8, the Council approved the government's selecting a representative area for the "Erosion Control Station." The resolution stated that "unless sound plans for the control of this erosion are developed and carried into practice without further delay, the greater portion of the reservation will be damaged beyond repair" (Navajo Tribal Council Resolutions, p. 151). After approval, CCC crews started fencing the area at Mexican Springs almost immediately. Bennett had chaired the committee that wrote the report on the conservation work needed on the reservation. The committee report became the blueprint for the action program that Collier proposed to Secretary Ickes.

ASSISTANCE TO OTHER INDIAN RESERVATIONS

While Bennett traveled to the Navajo reservation, some of his experiment station superintendents traveled to other reservations and wrote reports to the Office of Indian Affairs on the erosion conditions and needed conservation methods. George W. Musgrave, superintendent of the Clarinda, Iowa, station surveyed the Rosebud and Pine Ridge reservations. Musgrave explained that the reservations were "so large and the problems so diverse that a minimum of several days seems necessary to do anything like an adequate job." Musgrave assured the Office of Indian Affairs staff that the entire soil survey division staff, including director A.G. McCall, were interested and would "endeavor to give to you the very best possible service" (Musgrave 1933).

J.M. Snyder, superintendent of the erosion experiment station at Statesville, North Carolina, wrote a report on erosion conditions on the Cherokee reservation (Rice 1933). H.G. Lewis of the Guthrie, Oklahoma, station was an advisor on the Indian Civil Conservation Corps camps in Oklahoma. He wrote a technical bulletin "Emergency Conservation Soil Erosion Control Work on Indian Lands in Oklahoma." The request from John Collier was to give McCall, Bennett and the experiment station superintendents an



Secretary of Agriculture Henry A. Wallace and Undersecretary Rexford T. Tugwell. Image RG-16-G-85-18-45497-B from the Records of the Office of the Secretary of Agriculture, National Archives, College Park.

opportunity to achieve one of their objectives, seeing that their research findings were utilized.

ALLOTMENT OF PUBLIC WORKS FUNDS FOR SOIL CONSERVATION

Ickes typically sought FDR's personal endorsement of projects approved by the Special Board for Public Works. On July 17, 1933 the board allotted \$5,000,000 for soil erosion prevention work on public and private lands under the direction of the Public Works Administration. McCrory and Lewis A. Jones, head of BAE's Division of Drainage and Erosion Control, believed that their Bureau would be given leadership of the erosion control project. The project would be operated as outlined in their plan of June 9, which had been sent forward a week before the National Industrial Recovery Act was signed (Jones 1933). Acting on the same supposition, USDA's Daily Digest of news stories on July 25 reported on the allotment of \$5,000,000 for soil erosion prevention. It quoted the Special Board for Public Works as saying the plan "provides for the practice of terracing, which agricultural engineers have found to be the most effective means of controlling erosion." Funds were to be allotted to the states in proportion to their cultivated acres (*Daily Digest* 1933).

As it turned out, the announcement

was premature. In early June as the Colliers were meeting with USDA officials, but before the passage of National Industrial Recovery Act and before the committee had studied the Navajo reservation, Samuel H. McCrory, Chief of the BAE, drafted a plan that called on the Federal Emergency Administration of Public Works to fund a national terrace-building program. In the letter that Acting Secretary Rexford Tugwell sent to Harold Ickes, USDA recommended that the BAE be designated "to handle the administrative and engineering features of this work." Secretary Wallace penned a note to the outgoing letter. "I have had this matter of expenditure of Public Works money for erosion control up with the President and he is very much interested" (Tugwell 1933).

BUREAU OF AGRICULTURAL ENGINEERING PROPOSAL AND BENNETT'S ANGER

The announcement of the BAE's proposal evidently touched off the episode recounted in Wellington Brink's *Big Hugh* and in Rexford Tugwell's *Roosevelt's Revolution: The First Year—A Personal Perspective*. Tugwell was writing more than 40 years after the incident and Bennett's recollections were obviously the source for Brink's account. While somewhat different in details, the two accounts comport in the essential elements.

In an agitated state, Bennett ignored protocol and went straight to the Assistant Secretary's office, where Tugwell invited him in. Tugwell had the various plans laid out on his desk. He tried to assure a skeptical Bennett that he, Tugwell, had planned to consult Bennett before making a decision. The two knew each other, at least through correspondence, before Tugwell, a professor of economics at Columbia University, became Assistant Secretary on March 7, 1933. Tugwell also served in FDR's "Brain Trust," the personal advisors selected more for their expertise and commitment than for their political connections and acumen. Bennett had supplied material on soil erosion for Tugwell's *American Economic Life and the Means of Its Improvement*. Both Bennett and Tugwell, from their different perspectives, had come to view soil as a kind of public trust.

Reacting to the national terracing proposal, Bennett repeated his familiar arguments for interdependent, mutually supporting practices for soil conservation. Terraces certainly contributed to soil conservation when designed properly and when built on the appropriate soil. However, terraces were no panacea, and should be supported by strip cropping, contour plowing, crop rotations, and grassed waterways. The soil conservation experiment station under Bennett's supervision had been researching soil-conserving efficiency of all these practices. Furthermore, Bennett feared that this propitious moment for a national soil conservation program might be squandered if a narrow approach were taken. As recounted through Brink, Tugwell agreed saying, "That sounds reasonable to me.... I'll see what I can do to direct the use of the money approved by the public works board under Secretary Ickes." Further, Tugwell assured Bennett that he would have a leading part in the program (Brink 1951; Tugwell 1977).

PLANS OF THE OFFICE OF INDIAN AFFAIRS

Another problem with the national terracing plan was that it did not seem to accommodate the work John Collier wanted done on the reservations. Collier requested \$2,500,000 for work on the reservations which would be handled by The Office of Indian Affairs, "rather than through the Department of Agriculture" (Ickes 1933b). Collier remained enthusiastic about Bennett. In response to an inquiry he wrote to Congressman Will Hastings, "I have seen a good deal of Dr. Bennett in recent months and have developed the highest regard for him" (Collier 1933b, July 28, 1933). Collier understood that improved range management, in addition to water development and control of erosion, would be needed on the reservation. He saw the wisdom in Bennett's interdisciplinary approach. In recommending Bennett to Ickes, Collier lauded Bennett's interdisciplinary approach that had no place for blinkered allegiance to engineering, agronomy, ecology, or animal husbandry as panaceas" (Helms, forthcoming).

TUGWELL'S INFLUENCE

Rexford Tugwell's actions confirm the assurances given to Bennett in their meeting. Tugwell held a conference on July 24 and directed changes in the Bureau of Agriculture Engineering plan that had been submitted to Ickes on June 9. The revised plan bears Bennett's handiwork. The work would be limited to approximately ten large areas where, "Terracing, strip-cropping and seeding to permanent pastures are to be the principal control measures employed on the crop land, with possibly some tree planting on the steepest and most severely washed slopes." Each project would include specialists in agronomy, engineering, range or forestry and other disciplines. The outline generally fit with the future organization of the demonstration projects that Bennett would initiate as director of the SES. Also, the idea of large work areas accommodated Collier's plans for the Navajo Reservation. The Navajo Project was destined to be the second demonstration project initiated and the largest in real extent of all the projects (Memorandum 1933).

Tugwell had influence with the President and with Secretary Ickes. Ickes would soon be making his ill-fated case to Roosevelt to transform the Interior department into a Department of Conservation by wresting the Forest Service from USDA. Ickes regarded Tugwell's ability highly and hoped to entice him to assume the chief administrative position in the new Department of Conservation. Given the conflicts in USDA over supervision of the soil conservation work, Tugwell recommended placing the soil conservation operation, based on Bennett's plan, in the new Public Works Administration. Tugwell thought Ickes had agreed to this arrangement. While on a trip in the West, he was surprised to learn that Ickes had placed the new SES in the Department of the Interior on August 25.

Tugwell was more successful in recommending the first director. He favored Harlan Barrows, professor of geography at the University of Chicago. Barrows taught courses in conservation and natural resources and, reputedly, the first course in historical geography in the United States. True to his word, Tugwell passed along the

suggestion to Barrows that Bennett should have a prominent role in the organization. At Ickes's request, Barrows travelled to Washington where Ickes offered him the job on August 30, 1933 (Ickes 1933a, August 30, 1933). After conferring with the Dean of the Physical Science Division and the President of University of Chicago, Barrows declined the job (Barrows 1933). Ickes, dismayed at the delay, wrote to Wallace, "I am anxious to have this matter undertaken at once, as I know you are, and I regret the delay due to our waiting for Dr. Barrows, since, in the end, his decision was in the negative. How about H.H. Bennett of the Bureau of Chemistry and Soils, of your department?" (Ickes 1933c).

SELECTION OF HUGH HAMMOND BENNETT AS SES DIRECTOR

Secretary Wallace called Bennett in to discuss his transfer to the SES, and they reached an agreement that it was best he take leave without pay from USDA while working on the soil conservation project. Bennett asked that a number of the specialists at the experiment stations under his direction be detailed to the work, and Wallace agreed. Although the job had initially been offered to Barrows at Tugwell's suggestion, Wallace assured Ickes that "I have the feeling that Mr. Bennett is the best qualified man available to take over these duties. He has devoted more study to the problem of erosion than any other man in the country..." (Wallace 1933c).

Bennett prepared a plan for the new service, and discussed it with Ickes on Saturday, September 16 (Ickes 1933a, September 16, 1933). The following Monday Bennett wrote Ickes trying to persuade him that the best name for the agency would be the Soil Conservation Service. Bennett favored the more optimistic, positive term. The term in fact more accurately described the interrelated methods used to conserve and improve soils, not just hold them in place. Ickes would not relent, and Bennett became Director of the Soil Erosion Service. The SES was moved to USDA at President Roosevelt's direction in March 1935, and an act of Congress on April 27, 1935, created the Soil Conservation Service (Bennett 1933a).

Wallace's assessment that Bennett was

the best-qualified person to lead a concerted federal action for soil conservation was probably correct. Preparation and opportunity intersected in his selection as Director of the SES. The events of June through September of 1933 were particularly decisive, demonstrating the role of contingency in historical developments. In this case those events were critical to the history of the SCS and Hugh Bennett's recognition as the father of soil conservation.

ACKNOWLEDGEMENTS

The first part of this article is based on Douglas Helms, "Hugh Hammond Bennett," *Modern American Environmentalists* (forthcoming from Johns Hopkins University Press).

REFERENCES

- Barrows, H. 1933. Letter to Rexford Tugwell. Folder: "Positions-Outside," General Correspondence, Record Group 16. College Park, MD: National Archives and Records Administration. September 1, 1933.
- Bennett, H.H. 1933a. Letter to Harold Ickes. File 1-275 Soil Erosion, Central Classified Files, Record Group 48. College Park, MD: National Archives and Records Administration. September 18, 1933.
- Bennett, H.H. 1933b. Navajo diary. Hugh Hammond Bennett Papers, Southern Historical Collection. Chapel Hill, NC: University of North Carolina.
- Bennett, H.H. 1959. The Hugh Bennett Lectures. Raleigh, NC: Agricultural Foundation, North Carolina State College.
- Bennett, H.H., and W.R. Chapline. 1928. Soil Erosion: A National Menace. US Department of Agriculture Circular No. 33. Washington, DC: US Government Printing Office.
- Brink, W. 1951. Big Hugh: The Father of Soil Conservation. New York: Macmillan.
- Collier, J. 1933a. John Collier to Wallace. Records of the Civilian Conservation Corps, Indian Division, 194141-1933, Control of Erosion 344, Record Group 75. Washington, DC: National Archives and Records Administration. June 10, 1933.
- Collier, J. 1933b. John Collier to William Hastings. Chronological File, John Collier Papers, Microform of the Original Papers in Yale University Library. Sanford, NC: Microfilming Corp. of America, 1980. July 28, 1933.
- Collier, J. 1963. From Every Zenith: A Memoir and Some Essays on Life and Thought. Denver, CO: Sage Books.

- Congressional Record. 73rd Congress, 1st Session, 77:1,650,659-660.
- Daily Digest. 1933. Vol. 50, No. 20, July 25, 1933. Copy in Civilian Conservation Corps, Indian Division, 1941-1933, Control of Erosion 344, Record Group 75. Washington, DC: National Archives and Records Administration.
- Fryer, E.R. 1937. The Navajo service. In *Proceedings of the First Navajo Land Management Conference*, March 2-6, 1937, Falstaff, Arizona, 1-8. Soil Conservation Service Region Eight Records, Center for Southwest Research, University of New Mexico.
- Helms, D. Forthcoming. The first part of the essay is based on Douglas Helms, Hugh Hammond Bennett. In *Modern American Environmentalists*. Baltimore, MD: Johns Hopkins University Press.
- Ickes, H.L. 1933a. Ickes Diary, Papers of Harold L. Ickes, Manuscript Division, Library of Congress. Diary entry date is listed in each citation.
- Ickes, H.L. 1933b. Ickes, Federal Emergency Administrator of Public Works to Colonel Waite, File 1-275 Soil Erosion, Central Classified Files, Record Group 48, National Archives and Records Administration, College Park, August 9, 1933.
- Ickes, H.L. 1933c. Harold L. Ickes to Henry A. Wallace, Folder: Positions-Outside," General Correspondence," Record Group 16, National Archives and Records Administration, College Park, September 3, 1933.
- Jones, L.A. 1933. Lewis A. Jones to S. H. McCrory, July 19, 1933, and Jones to C. E. Ramser, July 20, 1933. File 3-20-C Soil Conservation, General Correspondence, 1931-1939, Record Group 8. College Park, MD: National Archives and Records Administration, July 19, 1933.
- Kelly, L.C. 1985. Anthropology in the Soil Conservation Service. *Agricultural History* 59(2):136-147.
- Kimball, S.T., and J.H. Province. 1942. Navajo social organization in land use planning. *Applied Anthropology* 4(1):19-20.
- Knight, H.G. 1933. Letter to Henry A. Wallace. File 37017, General Correspondence, Record Group 54. College Park, MD: National Archives and Records Administration, June 9, 1933.
- Memorandum 1933. Memorandum in regard to erosion control project of the United States Department of Agriculture under authority of the National Industrial Recovery Act, July 31, 1933. File 1-275 Soil Erosion, Central Classified Files, Record Group 48. College Park, MD: National Archives and Records Administration.
- Musgrave, G.W. 1933. George W. Musgrave to J. B. Nash, June 29, 1933. File 1941-1933, Control of Erosion 344, Records of the Civilian Conservation Corps, Indian Division, Record Group 75. Washington, DC: National Archives and Records Administration.
- Navajo Tribal Council Resolutions, p. 151.
- Parman, D.L. 1976. *The Navajos and the New Deal*. New Haven: Yale University Press.
- Parman, D.L. 1994. *Indians and the American West*. Bloomington: Indiana University Press.
- Report. 1933. Report on interviews with H.H. Bennett, W.R. Chapline, and Frank Craighead. (Stamped received in Bureau of Indian Affairs, May 31, 1933, Jay B. Nash, Director, Indian Emergency Conservation Work. J. Collier wrote to A.G. McCall on May 24, requesting Musgrave's and Lewis's assistance. The meeting took place on or before that date). File 1941-1933, Control of Erosion 344, Records of the Civilian Conservation Corps, Indian Division, Record Group 75. Washington, DC: National Archives and Records Administration.
- Rice, A.G. 1933. A. G. Rice to A. G. McCall. File 1941-1933, Control of Erosion 344, Records of the Civilian Conservation Corps, Indian Division, Record Group 75. Washington, DC: National Archives and Records Administration. October 10, 1933.
- Statutes at Large. 48 Stat 195, 201.
- Tugwell, R.G. 1933. Rexford G. Tugwell, acting secretary, to administrator, Federal Emergency Administration of Public Works. File 1941-1933, Control of Erosion 344, Records of the Civilian Conservation Corps, Indian Division, Record Group 75. Washington, DC: National Archives and Records Administration. June 9, 1933.
- Tugwell, R.G. 1977. *Roosevelt's Revolution: The First Year, a Personal Perspective*. New York: Macmillan.
- Wallace, H.A. 1933a. Henry A. Wallace to S. H. McCrory. File 3-20-C Soil Conservation, General Correspondence, 1931-1939, Record Group 8. College Park, MD: National Archives and Records Administration. May 30, 1933.
- Wallace, H.A. 1933b. Henry A. Wallace to Henry Knight. File 37017, General Correspondence, Record Group 54. College Park, MD: National Archives and Records Administration. June 14, 1933.
- Wallace, H.A. 1933c. Henry A. Wallace to Harold Ickes. Folder: Positions Outside, General Correspondence, Record Group 16. College Park, MD: National Archives and Records Administration. September 12, 1933.

Buffers, Detention Basins, and Bioengineering-

Where do I get the materials?

CONTACT US! WE CAN HELP!

ERNST SEEDS

9006 Mercer Pike ~ Meadville, PA 16335
phone: 800-873-3321 ~ fax: 814-336-5191